EVON S. EREIFEJ, PhD

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Neural Engineering Center, Biomedical Engineering Department, Case Western Reserve University
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EDUCATION:

PhD/ Biomedical Engineering	Wayne State University, Detroit, MI	2012
M.S./Biomedical Engineering	Wayne State University, Detroit, MI	2007
B.S./Biological Sciences	Wayne State University, Detroit, MI	2005

RESEARCH EXPERIENCE:

Louis Stokes VA Medical Center Cleveland, OH	Biomedical Engineer	2014 – Present
Case Western Reserve University Cleveland, OH	Postdoctoral Associate Biomedical Engineering	2014 - Present
Virginia Tech Blacksburg, VA	Post Doctoral Associate Biomedical Engineering	2012 - 2014
Wayne State University Detroit, MI	Research Assistant Biomedical Engineering	2009 - 2012
John Dingell VA Medical Center Detroit, MI	Research Assistant (non-wage)	2007 - 2012

RESEARCH SUPPORT:

Career Development Award 1 – Department of Veteran's Affairs Rehabilitation R&D – Grant # A1664-M
"Therapeutic and Topographical Approaches for Improved Neural Electrode Biocompatibility"
Role: Principal Investigator

Clinical and Translational Science Collaborative (CTSC) Core Utilization Application - National Center for Advancing Translational Sciences (NCATS) and the National Institutes of Health (NIH) – "Investigation of gene expression profiles surrounding intracortical microelectrodes"

TEACHING EXPERIENCE:

Adjunct Faculty Wayne State University; Detroit, MI 2011 - 2014

- Graduate level - Introduction to Cell Biology and Physiology for Engineers
- Undergraduate level - Introduction to Molecular and Cell Biology for Engineers

Graduate Teaching Assistant (GTA) Wayne State University; Detroit, MI 2008- 2009

- Under graduate level- Materials Science, Graduate level - Advanced Biocompatibility and Introduction to Cell Biology and Physiology for Engineers

Adjunct Faculty Macomb Community College; Warren, MI 2007- 2008

- Undergraduate level Fundamentals of Nutrition and General Biology 1

MENTORSHIP:

Case Western Reserve University Cleveland, OH	High School, Undergraduate and Graduate students	2014 – Present
Virginia Tech Blacksburg, VA	High School, Undergraduate and Graduate students	2012 - 2014
Wayne State University Detroit, MI	High School, Undergraduate and Graduate students	2008 - 2012

PUBLICATIONS:

Ereifej ES, Meade S, Smith C, Chen K, Kleinman N, Capadona JR. Status Epilepticus due to Intraperitoneal Injection of Vehicle Containing Propylene Glycol in Sprague Dawley Rats. Comparative Medicine. 2016 September (in review)

VandeVord PJ, Sajja VS, **Ereifej ES**, Hermundstad A, Mao S, Hadden TJ. Chronic hormonal imbalance and adipose re-distribution is associated with hypothalamic dysfunction following blast exposure. Journal of Neurotrauma. 2016 Jan 1;33(1):82-8

Sajja VS, **Ereifej ES**, VandeVord PJ. Hippocampal vulnerability and subacute response following varied blast magnitudes. Neuroscience Letters. 2014 June 6, 570: 33-7

Ereifej ES, Khan S, Newaz G, Zhang J, Auner GW, VandeVord PJ. Comparative Assessment of Iridium Oxide and Platinum Alloy Wires using an in vitro Glial Scar Assay. Biomedical Microdevices. 2013

Ereifej ES, Matthew HWT, Newaz GW, Mukhopadhyay A, Auner GW, Salakhutdinov I, VandeVord PJ. Nanopatterning Effects on Astrocyte Reactivity. Journal of Biomedical Materials Research: Part A. 2013;101(6):1743-57

Ereifej ES, Mark MC, Guangzhao M, VandeVord PJ. Examining the Inflammatory Response to Nanopatterned Polydimethylsiloxane using Organotypic Brain Slice Methods. J Neurosci Methods. 2013;217(1-2):17-25

Ereifej ES, Khan S, Newaz G, Zhang J, Auner GW, VandeVord PJ. Characterization of Astrocyte Reactivity and Gene Expression on Biomaterials for Neural Electrodes. Journal of Biomedical Materials Research: Part A. 2011;99(1):141-50

Trivedi V, Doshi A, Kurup GK, **Ereifej ES**, Vandevord PJ, Basu AS.A modular approach for the generation, storage, mixing, and detection of droplet libraries for high throughput screening. Lab Chip. 2010;10(18):2433-42.

Trivedi V, **Ereifej ES**, Doshi A, Sehgal P, Vandevord PJ, Basu AS. Microfluidic encapsulation of cells in alginate capsules for high throughput screening. Conf Proc IEEE Eng Med Biol Soc. 2009;7037-40

de Guzman R, **Ereifej ES** , Broadrick KM, Rogers RA, VandeVord PJ. Alginate-matrigel microencapsulated Schwann cells for inducible secretion of glial cell line derived neurotrophic factor. Journal of Microencapsulation. 2008; 17:1-12

CONFERENCE PRESENATIONS:

Smith C, Meade S, Chen K, Capadona JR, **Ereifej ES.** The Effect of Nanopatterned Surface on Intracortical Microelectrode Biocompatibility. Biomedical Engineering Society National Conference, October 2016, Minneapolis, MN, Poster Presentation.

Dona K, Goss M, McMahon J, **Ereifej ES,** Capadona JR. Effect On Rat Motor Behavior Of Chronic Intracortical Microelectrodes Implanted In The Motor Cortex. Biomedical Engineering Society National Conference, October 2016, Minneapolis, MN, Poster Presentation.

Ereifej ES, Smith C, Meade S, Chen K, Capadona JR. Topographical Approaches for Improved Neural Electrode Biocompatibility. Neural Interfaces Conference, June 2016, Baltimore, Maryland, Poster Presentation

Srail TW, **Ereifej ES**, Potter-Baker KA, Capadona JR. Complexing blood proteins and resveratrol to increase reactive oxygen species scavenging for intracortical electrode use. Biomedical Engineering Society National Conference, October 2014, San Antonio, TX, Poster Presentation.

Bailey Z, Sajja VS, Hubbard WB, **Ereifej ES**, VandeVord PJ. Blast induced neurotrauma leads to changes in the epigenome. Biomedical Engineering Society National Conference, October 2014, San Antonio, TX, Podium Presentation.

Bailey Z, Sajja VS, **Ereifej ES**, Hubbard WB, VandeVord PJ. Blast induced neurotrauma leads to changes in the epigenome. International Brain Injury Association World Congress, March 2014, San Francisco, CA

Ereifej ES, Hampton CE, Thorpe CN, Rzigalinski BA, VandeVord PJ. Cellular Mechanisms of Shock Wave Generated Blast Neurotrauma. Biomedical Engineering Society National Conference, September 2013, Seattle, WA, Poster Presentation.

Hubbard WB, Sajja VS, **Ereifej ES**, VandeVord PJ. Oxidative stress and glial response could lead to anxiety following varied levels of blast overpressure. Biomedical Engineering Society National Conference, September 2013, Seattle, WA, Poster Presentation.

Lemieux L, **Ereifej ES**, Hampton CE, Leonardi A, VandeVord PJ. Effects of Shock Wave Pressures on Astrocyte Reactivity Over Time. Biomedical Engineering Society National Conference, October 2012, Atlanta, GA, Poster Presentation.

Ereifej ES, Khan S, Newaz G, VandeVord PJ. Comparative Assessment of Iridium Oxide and Platinum Wires Using an in vitri Glial Scar Assay. Society for Biomaterials National Conference, April 2011, Orlando, FL, Poster Presentation

Ereifej ES, Yang J, Cheng MC, VandeVord PJ. Astrocyte Reactivity to Neural Implant with Porous Silicon Backbone Support. Society for Biomaterials National Conference, April 2011, Orlando, FL, Poster Presentation

Ereifej ES, Salakhutdinov I, Mukhopadhyay A, Matthew H, VandeVord PJ. Nanopatterning Effects on Protein Adsorption and Glial Cell Response. Biomedical Engineering Society National Conference, October 2009, Pittsburgh, PA, Podium Presentation

Trivedi V, **Ereifej ES**, Doshi A, Sehgal P, VandeVord PJ, Basu A. Microfluidic Encapsulation of Cells in Alginate Capsules for High Throughput Screening. 31st Annual International IEEE EMBS Conference, September 2009, Minneapolis, MN, Podium Presentation

Ereifej ES, Salakhutdinov I, VandeVord PJ. The Effect of Nanopatterning Poly(methyl methacrylate) on Glial Cell Activation and Proliferation. Society for Biomaterials National Conference, April 2009, San Antonio, TX, Podium Presentation

Ereifej ES, Khan S, Newaz G, VandeVord PJ. Astrocyte Response to Various Biomaterials for bioMEMs. Society for Biomaterials National Conference, April 2009, San Antonio, TX, Poster Presentation

Ereifej ES, de Guzman RC, Rogers R, VandeVord PJ. Comparison of Long Term Viability and Mechanical Stability of Alginate versus Alginate-Matrigel Microencapsulated Schwann Cells. World Biomaterials Congress, May 2008, Amsterdam, Netherlands, Podium Presentation

Ereifej ES, de Guzman RC, Rogers R, VandeVord PJ. Long Term Viability and Mechanical Stability of Alginate-Microencapsulated Schwann Cells. Biomedical Engineering Society National Conference, September 2007, Las Angeles, CA, Poster Presentation

Ereifej ES, de Guzman RC, VandeVord PJ. Long Term Viability of Alginate-Microencapsulated Schwann Cell Line RT4-D6P2T. Society for Biomaterials National Conference, April 2007, Chicago, IL, Poster Presentation

AWARDS:

BMES National Conference Seattle, WA 2013	BMES Innovation and Career Development Travel Award	2013
Wayne State University Detroit, MI	Anthony and Joyce Danielski Kales Scholarship	2011
Wayne State University Detroit, MI	Dissertation Research Support Award	2011

PROFESSIONAL AFFILIATIONS AND ACTIVITIES:

Biomedical Engineering Society	2005-Present
Society for Biomaterials Society	2011-2012
Journal reviewer for *Biomedical Materials*	2013- Present

ACADEMIC AFFILIATIONS AND ACTIVITIES:

Wayne State University Detroit, MI	President of Biomedical Engineering Society (BMES) Student Chapter	2006 - 2008
	Treasurer of BMES Student Chapter	2005 - 2006